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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/373,980	08/16/1999	ANDREW J. STIRLING	2425-8	3175
23117	7590	11/19/2003	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			DO, NHAT Q	
			ART UNIT	PAPER NUMBER
			2663	12

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/373,980

Applicant(s)

STIRLING ET AL.

Examiner

Nhat Do

ND

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66,70,71,75-78,82,83 and 87-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66,70,71,75-78,82,83 and 87-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 76 is objected to because of the following informalities:

The phrase "fundamental unit" in line 2 should be changed to "functional unit" in order to keep consistence with the "said functional unit" of claim 77.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 66, 70, 71, 75-78, 82, 83, and 87-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of U.S. Patent No. 5,278,689 to Gitlin et al, and U.S. Patent No. 5,946,315 to Ramfelt et al.

Regarding to claims 66, and 78, Admitted prior art disclose a communication network comprising:

A plurality of stations interconnected by data carrying segments so as to form a ring network (Fig. 1);

Each station comprises a network interface for transmitting data from a station onto a respective segment of the ring network and for receipt by the network interface of a subsequence station (Fig. 2, 3 or 4);

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Each frame conveys control bits forming part of a control message frame transmitted over plural frames over all segments of the ring (specification 24, lines 15-27).

A master station generates frame structure (Specification 16, line 13). Therefore, it is inherent the network interface at each station must be synchronized with the master clock at the master station in order to transceive/transmit data/audio data.

Admitted prior art fails to disclose the network interfaces of at least two stations in the system are operable such that the data rate in a first segment of the ring is higher than that in a second segment of the ring.

Gitlin et al disclose a ring network in figure 10 similar to ring structure of admitted prior art in figure 1 comprising:

Connecting a first logical network to the ring to detect a data field at one bit rate (Col. 6, lines 30-35); therefore it is inherent that there is an interface operates at one data rate in that one segment of the ring;

Connecting a second logical network to the ring to detect a data field at another bit rate (Col. 6, lines 37-42); therefore it is inherent that there is an interface operates at another data rate in that another segment of the ring;

Since Gitlin et al disclose the two data rates are not equal to each other (Col. 6, lines 40-40), the examiner is in the position whichever rate that has higher rate is the first data rate and the other is the second data rate.

To sum up, Gitlin et al disclose a system comprising at least two network interfaces that are operable such that the data rate in the a first segment of the ring is higher than that in a second segment of the ring.

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It would have been obvious to a person having ordinary skill in the art by the time the invention was made to modify the interfaces of prior art so that the network interfaces of at least two stations in the system are operable such that the data rate in a first segment of the ring is higher than that in a second segment of the ring.

A skilled artisan would have been motivated to do in order to employ the benefit disclosed by Gitlin et al, which is users with different services can be connected in the same ring (Col. 4-line 52-col. 6, line 22).

Gitlin et al fail to disclose synchronization is maintained by the provision of a regular frame structure, which has the same frame period in both segments of the network.

Ramfelt et al disclose that in ring network, frame structure (cycle time and slot length) must be the same (constant) for maintaining synchronization when the networks operate at different speeds (Col. 9, lines 1-5).

Therefore, it would have been obvious to a person having ordinary skill in the art by the time the invention was made to maintain synchronization by the provision of a regular frame structure, which has the same frame period in both segments of the network in modifying admitted prior art by Gitlin et al. A skilled artisan would have been motivated to so in order to recover frame structure generated by the master station.

Since Gitlin et al disclose only the rate of the data portion is changed (second bit rate not equal to first bit rate (Col. 6, lines 40-43)) while the rate of the control portion is the same, it is inherent that the system of admitted prior art modified by Gitlin et al and Ramfelt et al has larger quantity of data in each frame of the first segment; and

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Successive control message frames forming a control channel shared by all stations of the ring network and having a constant rate for control information in all segments.

Regarding to claims 70, and 82, the admitted prior art disclose in figure 4 an interface (for node 121) receives form a LAN audio data sources. Admitted prior art also disclose the data sources is transported on the network in frames generated by System Master (Specification page 17, lines 8-20). For transmitting LAN audio data source in frames generated by the system master, it is inherent the interface (for node 121) comprising a means for synchronizing the audio data sources with the data rates of the interface prior transporting it on the network.

Regarding to claims 71, and 83, further to the rejection of claims 66, and 78, the admitted prior discloses an interface in figure 4.

It is inherent that the interface comprises a means for transmitting data onto the outgoing segment of the ring network for receipt by a subsequence system.

Admitted prior art fails to disclose the interface operates, at least in a mixed-speed mode, to transmit data in the outgoing segment at a data rate synchronized with but different to the rate of data received on the incoming segment.

However, in order to apply the teaching of Gitlin et al to the admitted prior art (for employing the benefit of Gitlin et al as disclosed in the rejection of claim 66), a skilled artisan would have been motivate to modify the interface in figure 4 of admitted prior art so that it operates, at least in a mixed-speed mode, to transmit data in the outgoing segment at a data rate synchronized with but different to the rate of data received on the incoming segment when the interface receives data at one rate and subsequence station in the ring receives data at another rate.

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Regarding to claims 75, and 87, the claims are rejected because the claims recite the rejected limitations of claims 70, and 87.

Regarding to claim 76, and 77, Admission discloses the interface comprises a source and destination of audio data (specification page 17, lines 8-15).

Regarding to claims 88, and 89, the claims are rejected because the claims recite the rejected limitations of claims 76, and 77.

Regarding to claim 90, Admission disclose:

Transmitting successive frames occupying successive equal time period;

Transmitting the same number of control bits in each frame to form a control channel shared by all stations of the ring network.

It is inherent that Admission modified by Gitlin et al and Ramfelt et al comprising transmitting different numbers of payload data bits in respectively corresponding different one of the frames to form a plurality of ring link segments having different payload data rates to respectively corresponding different stations of the ring network.

Response to Arguments

4. Applicant's arguments with respect to (amended) claims 66, 70, 71, 75-78, 82, 83, and 87-90 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhat Do whose telephone number is (703) 305-5743. The examiner can normally be reached on 8:30 AM - 5:30 PM Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-308-6743.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nhat Do
Examiner
Art Unit 2663

ND

November 13, 2003.



MELVIN MARCELO
PRIMARY EXAMINER